Dairy Cow Synchronization Protocols - 2011

Timed AI after detection of estrus

For herds with efficient and accurate estrus-detection systems in place.



Start timed AI (TAI) program on cows not inseminated

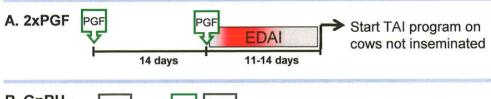
Definitions and comments:

<u>EDAI</u> = estrous detection and AI after detection of estrus.

Start and stop dates for EDAI depend on the voluntary waiting period (VWP) and the reproductive goals of the individual herd.

Presynch methods used before Ovsynch

Used with Ovsynch programs (listed below) to increase pregnancies per Al (P/AI). Programs can be used with or without estrous detection and Al (EDAI).



B. GnRHPGF-GnRH

Start TAI program on cows not inseminated

Definitions and comments:

PGF = prostaglandin F_{2a}. Trade names for suitable products include:

Lutalyse®, Estrumate®,

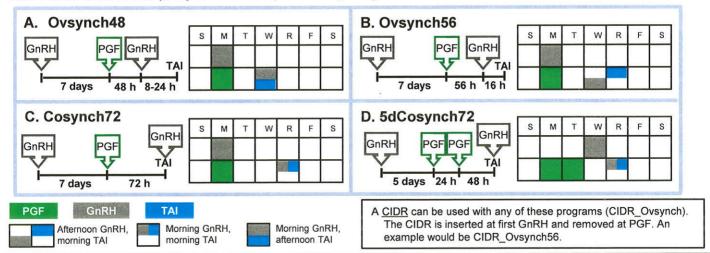
Prostamate®, In-Synch®, and estroPLAN®.

GnRH = gonadotropin-releasing hormone. Trade names for suitable products include: Cystorelin®, Factrel®, Fertagyl®, and OvaCyst®.

Intensity of red color within EDAI denotes periods to expect most cows in estrus. Most cows come into estrus 2 to 7 d after PGF.

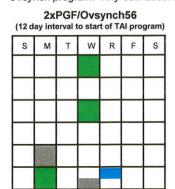
Ovsynch methods used for TAI

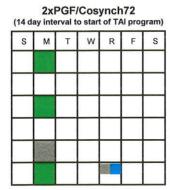
Can be used alone or with presynch methods (see above). Programs can be used with or without EDAI.

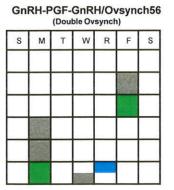


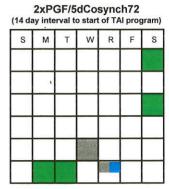
Presynch-Ovsynch Calendars

Calendars are examples of presynch-ovsynch combinations that are used for insemination. Any presynch program can be combined with any Ovsynch program. Any cow observed in estrus after the VWP can be inseminated. Cows will often show estrus 2 to 7 d after PGF.









The synchronization efficiency and fertility may differ among the listed programs. Specific research data should be evaluated to determine the program that is optimal for use on a particular dairy.

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Example: Ovsynch56

PGF

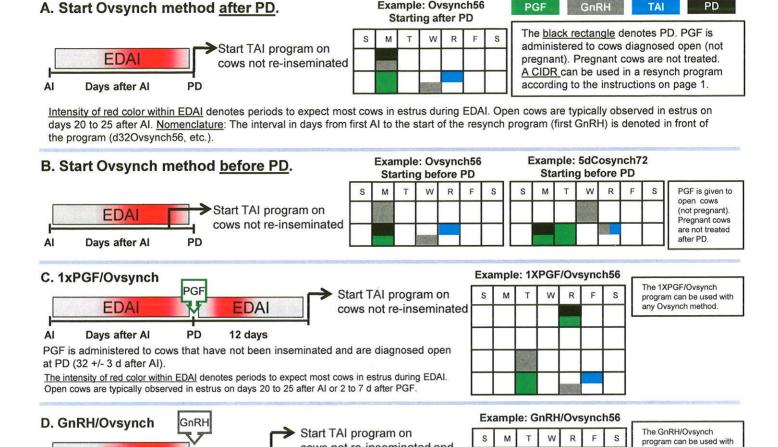
TAI

Resynch methods

EDAI

Days after Al

Any cow that is diagnosed open at pregnancy diagnosis (PD) can be resynchronized. Methods can be used with or without estrous detection and AI after observed estrus (EDAI).



cows not re-inseminated and

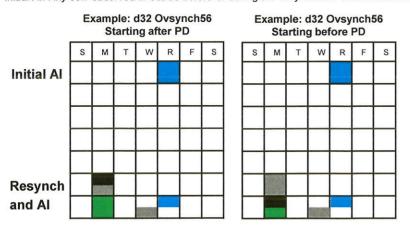
diagnosed not pregnant

GnRH is administered to cows that have not been re-inseminated at 32 +/- 3 d after previous Al. Cow do not usually come into estrus within one week after a GnRH injection.

7 days

Calendars are examples of resynch programs. Any resynch program can be used after an initial AI. Any cow observed in estrus before or during the resynch can be inseminated.

Sample Calendars for Resynch Programs



The synchronization efficiency and fertility may differ among the listed programs. Specific research data should be evaluated to determine the program that is optimal for use on a particular dairy

Compliance table

The following table is provided for reference. It shows the percentage of cows that receive all injections (yellow boxes) as a function of compliance at an individual injection. As an example, if 95 out of 100 cows receive their injection on any given day then the herd has 95% compliance. The greatest P/AI are achieved with 100% compliance so that all cows receive every injection. Farms should have a method to monitor compliance before they start a program.

any Ovsynch method.

Compliance	3 injection program	5 injection program
100%	100%	100%
95%	86%	77%
90%	73%	59%

This protocol sheet was assembled by members of the Dairy Cattle Reproduction Council (DCRC). Programs are intended to promote sustainable food production by the dairy industry through sound reproductive management practices.

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